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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,220	04/04/2006	Gil Ronen	30698	2247

7590
Martin Moynihan
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PO Box 16446
Arlington, VA 22215

09/17/2007

EXAMINER

WORLEY, CATHY KINGDON

ART UNIT	PAPER NUMBER
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1638

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,220	Applicant(s) RONEN ET AL.	
	Examiner Cathy K. Worley	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-52 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Groups I-XV, claim(s) 1-8 (in part), drawn to an isolated polynucleotide comprising a nucleic acid sequence at least 80% identical to a first specified sequence, and to a nucleic acid construct comprising said polynucleotide, including a construct further comprising a second specified nucleic acid sequence, and to a transgenic cell and plant comprising said construct; wherein the first specified sequence for the construct of groups I-V is SEQ ID NO:23, for groups VI-X is SEQ ID NO:26, and for groups XI-XV is SEQ ID NO:29; and wherein the second specified nucleic acid sequence for groups I, VI, and XI is SEQ ID NO: 59, for groups II, VII, and XII is SEQ ID NO:61; for groups III, VIII, and XIII is SEQ ID NO:63; for groups IV-IX, and XIV is SEQ ID NO:65, and for groups V, X, and XV is SEQ ID NO:67.

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Groups XVI-XX, claim(s) 9-11 (in part), drawn to an isolated polynucleotide comprising a nucleic acid sequence encoding a peptide; wherein the peptide for groups XVI-XX is encoded by a specified sequence; and wherein the specified sequence for groups XVI-XX is SEQ ID NOs: 59, 61, 63, 65, and 67, respectively.

Groups XXI-XXX, claim(s) 12-20 (in part), drawn to a method of producing a polypeptide of interest in plant trichomes, including wherein said method utilizes a specified promoter; wherein the specified promoter for groups XXI-XXX is SEQ ID NO: 23, 26, 29, 35, 38, 39, 42, 48, 50, and 51, respectively.

Group XXXI, claim(s) 21, 22, and 27-30 (in part), drawn to a method of producing a molecule of interest in plant trichomes by expressing a polypeptide capable of directly increasing the level of the molecule of interest in the plant trichomes.

Group XXXII, claim(s) 21, 22, and 27-30 (in part), drawn to a method of producing a molecule of interest in plant trichomes by expressing a polypeptide capable of indirectly increasing the level of the molecule of interest in the plant trichomes.

Groups XXXIII-XLII, claim(s) 21 and 23-20 (in part), drawn to a method of producing a molecule of interest in plant trichomes by expressing a polypeptide capable of directly increasing the level of the molecule of interest in the plant

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trichomes; including wherein said method utilizes a specified promoter; and wherein the specified promoter for groups XXXIII-XLII is SEQ ID NO: 23, 26, 29, 35, 38, 39, 42, 48, 50, and 51, respectively.

Groups XLIII-LII, claim(s) 21 and 23-20 (in part), drawn to a method of producing a molecule of interest in plant trichomes by expressing a polypeptide capable of indirectly increasing the level of the molecule of interest in the plant trichomes; including wherein said method utilizes a specified promoter; and wherein the specified promoter for groups XLIII-LII is SEQ ID NO: 23, 26, 29, 35, 38, 39, 42, 48, 50, and 51, respectively.

Groups LIII-XCII, claim(s) 31-46, drawn to a plant genetically modified to express a molecule of interest in trichomes; wherein the plant comprises a promoter selected from List A and an additional polynucleotide selected from List B; and wherein the plant for groups LIII-XCII each comprise a unique combination of promoter and polynucleotide sequences from Lists A and B; where Lists A and B are as follows:

List A:

SEQ ID NO: 23

SEQ ID NO: 26

SEQ ID NO: 29

List B:

SEQ ID NO: 59

SEQ ID NO: 61

SEQ ID NO: 63

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SEQ ID NO: 35

SEQ ID NO: 65

SEQ ID NO: 38

SEQ ID NO: 67

SEQ ID NO: 39

SEQ ID NO: 42

SEQ ID NO: 45.

Group XCIII, claim(s) 47-51, drawn to a method of harvesting trichomes.

Group XCIV, claim(s) 52, drawn to an apparatus for mechanical harvesting of trichome exudates and content.

2. The inventions listed as Groups I-XCIV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking groups I-XCIV is the feature of being involved in the expressing or harvesting of a product in trichomes. The technical feature of expression in trichomes is shown by Larkin et al. (1993) Plant Cell Vol. 5 pp.1739-1748 to lack novelty or inventive step. Larkin et al. teach that the promoter of the GL1 gene in conjunction with the 3' noncoding region direct expression of a GUS reporter gene in developing trichomes. Therefore, the technical feature linking the

inventions of groups I-XCIV does not constitute a special technical feature as defined by PCT Rule 13.2 as it does not define a contribution over the prior art.

Accordingly, Groups I-XCIV are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

3. Applicant is advised that the reply to this requirement to be complete must include (i) an election of an invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy K. Worley whose telephone number is (571) 272-8784. The examiner has a variable schedule but can normally be reached on M-F 10:00 - 4:00 with additional variable hours before 10:00 and after 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Cathy K. Worley
Patent Examiner
Art Unit 1638

CKW